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FROM THE ACC

President's Page: Letting Data Do the Talking

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An overarching strategic goal of the ACC is to be the preeminent source of cardiovascular clinical data that can help physicians and hospitals deliver high-quality and affordable patient care.

Over the last several years, the subject of how best to measure outcomes, improve care, and lower healthcare costs has engendered much debate and discussion in the healthcare community as well as among consumers, industry, and state and local lawmakers. At the American College of Cardiology (ACC), we believe that clinical data registries—like those that fall under the umbrella of the National Cardiovascular Data Registry (NCDR)—are an important part of these discussions.

In the cardiovascular space, the College is leading a number of efforts to leverage its 7 NCDR programs (6 hospital based and 1 ambulatory) to track and assess quality of care and outcomes associated with certain populations of patients with cardiovascular disease in the United States and internationally. In addition, the ACC is using its registry data to perform cutting-edge health outcomes research and identify gaps in cardiovascular care.

The ACC has long used registry data to showcase improvements in quality of care. For example, the ACC's CathPCI Registry data have been used to provide a contemporary view of the current practice of invasive cardiology in the United States, including information related to the availability of on-site cardiac surgery, appropriate use of percutaneous coronary interventions (PCIs), patient characteristics, and door-to-balloon (D2B) times for primary PCI. Data have played key roles in helping reduce D2B times, controlling costs associated with preventable procedural complications, limiting hospital readmissions, and more.

Last year's NCDR report, published in *JACC*, highlighted several success stories between 2008 and 2011. Data from both the CathPCI Registry and the ACTION Registry-GWTG found increased adherence to guideline-recommended D2B times of ≤90 min, as well as consistent prescription of recommended drug therapies such as aspirin, beta-blockers, and lipid-lowering agents (1).

Based on ACTION Registry-GWTG data, the percentage of ST-segment elevation myocardial infarction patients (both nontransfer and transfer) receiving reperfusion within the guideline-recommended time frame increased significantly between 2008 and 2011. The percentage of D2B times <90 min for nontransfer patients increased from 81% in 2008 to 94.2% in 2011, and the percentage of D2B times <90 min for transfer patients increased from 18% in 2008 to 30.4% in 2011 (1).

CathPCI data also showed that prescription of aspirin and $P2Y_{12}$ receptor antagonist at discharge remained relatively steady between 96% and 98% from 2009 to 2011. Prescription of lipid lowering agents rose from 89.7% in 2009 to 92.5% in 2011, whereas beta-blocker prescriptions increased from 83.1% to 86.3% over the same period. Consistency in practice patterns is 1 marker of success (1).

Registry data play an important role in pinpointing areas where the profession can continue to improve. For example, the NCDR report showed opportunities to improve

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not only adherence to appropriate use criteria in patients undergoing elective PCI, but also to clarify areas of uncertainty. According to the report, and using the definitions of appropriateness in place at time of publication, a little more than one-half (52.8%) of patients without an ACS indication in 2011 received PCI that was defined as appropriate, 37.3% fell into the category of uncertain appropriateness, and approximately 10% were deemed inappropriate. Follow-up of patients undergoing carotid artery stenting or carotid endarterectomy is another area where data indicate room for improvement. According to CARE Registry data, follow-up performed within 30 days following a procedure was 60% among carotid artery stenting patients and only 38.7% among carotid endarterectomy patients in 2011 (1).

On the ambulatory front, data from the PINNACLE Registry indicate gaps in the use of anticoagulants for stroke prevention in patients with atrial fibrillation (AF), as well as in the area of hypertension management. Only 57.2% of patients with AF in PINNACLE in 2011 were prescribed guideline-recommended anticoagulation therapy, clearly underscoring a need for increased education for patients and clinicians. Meanwhile, approximately 95% of providers regularly recorded patient blood pressures, but only 34.5% of patients had explicitly documented plans of care for hypertension (1).

Taking things a step further, registry data are proving to be useful beyond just identifying trends and gaps in care. They are increasingly used for research, performance improvement, and lifelong learning activities. Data have also been used to develop performance measures such as the National Quality Forum–endorsed 30-day PCI mortality measure and other risk-adjusted metrics for PCI, including bleeding and acute kidney injury. To date, data from the registry have been used in more than 200 studies published in medical, peer-reviewed journals, including *JACC*, and over 60 are currently in the research and publication process.

Physician-level dashboards, like those associated with the CathPCI Registry, support quality improvement, volume tracking, and maintenance of certification activities, as well as overall outcomes reports that have evolved over time to incorporate appropriate use criteria–based metrics. As a result of this integration, hospitals can track the appropriateness of PCIs performed and benchmark their information with other hospitals in the United States. Additionally, hospitals are able to identify opportunities to improve the selection of patients who undergo PCI by using the "institutional rates of procedural appropriateness" data included in the report.

Recent quality initiatives are also taking advantage of NCDR data. The ACC's Anticoagulation Initiative was developed in response to the gaps in anticoagulation care identified by the PINNACLE Registry, whereas the new Surviving MI Initiative is leveraging the broad registry community to improve survival after myocardial infarction. Reducing Radiation Risk, another new quality initiative, not only aims to improve patient outcomes, but has been approved by the American Board of Pediatrics for Maintenance of Certification Part IV credit. The program is focused on reducing radiation exposure for IMPACT Registry patients undergoing cardiac catheterization procedures for congenital heart disease.

Clinical trial recruitment is one of the most exciting new developments for data registries. In an effort to help address the need for strong clinical trial participation, reduce the burden for both practices and patients, and potentially drive down costs associated with recruitment, the PINNACLE Registry Research Alliance provides opportunities to facilitate patient identification, screening, and recruitment. After patients are identified through the PINNACLE Registry, their personal physician can facilitate a constructive shared decision-making encounter around possible trial participation.

In addition to trial recruitment, research participation can help patients access therapies that are not easily available outside of cardiovascular trials, provide participants with cutting-edge research results to improve practice and patient care, and provide access to clinical data and superior informatics for cutting-edge research opportunities.

The College has also been working with various state departments of health, insurance payers, and industry partners to promote quality of care and is currently working on policies with legislators that include the recommendation of participation in registries to improve patient outcomes. Internationally, the ACC is working with the International Consortium of Cardiovascular Registries to enhance the way device registries are used across the practice of cardiology and around the world. Opportunities abound to create a collaborative global network to inform quality of care measurement and feedback, device surveillance, pre- and post-market

approval studies, assessment of patient-centered outcomes, and more.

An overarching strategic goal of the ACC is to be the preeminent source of cardiovascular clinical data that can help physicians and hospitals deliver high-quality and affordable patient care. The challenge lies in continuing to engage physicians, nurses, administrators, hospitals, and other stakeholders in the registry programs in a manner that ensures the highest level of data quality, broader use and interpretation of data reports, and ongoing commitments to improving the delivery of care.

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